

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

### ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Chicago 2417 Bond Street University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-107462-1

Client Project/Site: Ponds and Process Tanks

For:

Central Wire (Techalloy) 6509 Olson Road Union, Illinois 60180

Attn: Robert Johnson

Authorized for release by:

Authorized for release by 2/22/2016 10:36:32 AM

Sandie Fredrick, Project Manager II (920)261-1660

sandie.fredrick@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Central Wire (Techalloy)
Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-107462-1

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#### **Definitions/Glossary**

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-107462-1

#### Qualifiers

#### GC/MS VOA

Qualifier **Qualifier Description** 

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier **Qualifier Description** 

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

В Compound was found in the blank and sample.

#### **General Chemistry**

Qualifier **Qualifier Description** 

Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

#### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
-	Listed condending "ID" and come to design at a that the penaltic penaltical and a discovariable has

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid **CNF** Contains no Free Liquid

DER Duplicate error ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision level concentration MDA Minimum detectable activity **Estimated Detection Limit** EDL

MDC Minimum detectable concentration

MDL Method Detection Limit Minimum Level (Dioxin) MLNC Not Calculated

Not detected at the reporting limit (or MDL or EDL if shown) ND

PQL Practical Quantitation Limit

QC Quality Control RER Relative error ratio

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) TEQ

#### **Case Narrative**

Client: Central Wire (Techalloy) Project/Site: Ponds and Process Tanks TestAmerica Job ID: 500-107462-1

Job ID: 500-107462-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-107462-1

Comments

No additional comments.

Receipt

The samples were received on 2/11/2016 9:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.2° C.

Receipt Exceptions

2 containers for sample #1 were received broken & leaking. Sufficient sample volume available for analysis. Samples not frozen.

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**General Chemistry** 

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### **Client Sample Results**

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-107462-1

Client Sample ID: P&T Effluent

Date Collected: 02/10/16 11:10 Date Received: 02/11/16 09:50

Lab Sample ID: 500-107462-1

Matrix: Ground Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			02/21/16 17:38	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			02/21/16 17:38	1
Trichloroethene	0.31	J	0.50	0.16	ug/L			02/21/16 17:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		75 - 125					02/21/16 17:38	1
4-Bromofluorobenzene (Surr)	89		75 - 120					02/21/16 17:38	1
Dibromofluoromethane	98		75 - 120					02/21/16 17:38	1
Toluene-d8 (Surr)	96		75 - 120					02/21/16 17:38	

**General Chemistry** Result Qualifier Analyte RL MDL Unit Prepared Analyzed Dil Fac рΗ 0.200 0.200 SU 02/11/16 19:04 8.43 HF

Client Sample ID: North Pond Lab Sample ID: 500-107462-2 Date Collected: 02/10/16 10:45 Matrix: Ground Water

Date Received: 02/11/16 09:50

Analyte	Result Q	ualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	120		100	26	ug/L		02/12/16 08:45	02/15/16 15:12	1
Lead	0.26 J	(	0.50	0.14	ug/L		02/12/16 08:45	02/15/16 15:12	1
Manganese	13 B	}	2.5	0.99	ug/L		02/12/16 08:45	02/15/16 15:12	1
Nickel	15		2.0	0.53	ug/L		02/12/16 08:45	02/15/16 15:12	1
Selenium	<0.83		2.5	0.83	ug/L		02/12/16 08:45	02/15/16 15:12	1

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	)	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	0.16		0.10	0.045	mg/L	 		02/15/16 23:44	1
pH	8.04	HF	0.200	0.200	SU			02/11/16 19:18	1

Client Sample ID: South Pond Lab Sample ID: 500-107462-3

Date Collected: 02/10/16 10:50 Date Received: 02/11/16 09:50

Analyte	Result Qu	ualifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	990	100	26	ug/L		02/12/16 08:45	02/15/16 15:16	1
Lead	4.0	0.50	0.14	ug/L		02/12/16 08:45	02/15/16 15:16	1
Manganese	44 B	2.5	0.99	ug/L		02/12/16 08:45	02/15/16 15:16	1
Nickel	150	2.0	0.53	ug/L		02/12/16 08:45	02/15/16 15:16	1
Selenium	< 0.83	2.5	0.83	ug/L		02/12/16 08:45	02/15/16 15:16	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	<0.045		0.10	0.045	mg/L			02/15/16 23:45	1
pH	7.67	HF	0.200	0.200	SU			02/11/16 19:32	1

Matrix: Ground Water

### **Client Sample Results**

TestAmerica Job ID: 500-107462-1

Client: Central Wire (Techalloy)
Project/Site: Ponds and Process Tanks

Client Sample ID: Trip Blank Lab Sample ID: 500-107462-4

Matrix: Water

Date Collected: 02/10/16 00:00 Date Received: 02/11/16 09:50

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			02/21/16 17:11	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			02/21/16 17:11	1
Trichloroethene	<0.16		0.50	0.16	ug/L			02/21/16 17:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		75 - 125			•		02/21/16 17:11	1
4-Bromofluorobenzene (Surr)	92		75 - 120					02/21/16 17:11	1
T-Diditionadioschizone (Gan)									
Dibromofluoromethane	101		75 <sub>-</sub> 120					02/21/16 17:11	1











#### Lab Chronicle

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-107462-1

Client Sample ID: P&T Effluent

Date Collected: 02/10/16 11:10 Date Received: 02/11/16 09:50

Lab Sample ID: 500-107462-1

Matrix: Ground Water

Batch Batch Dilution Batch Prepared Prep Type Type Method Run Factor Number or Analyzed Analyst Lab 323811 02/21/16 17:38 PMF Total/NA Analysis 8260B TAL CHI Total/NA SM 4500 H+ B 322568 TAL CHI Analysis 1 **HMW** (Start) 02/11/16 19:04 (End) 02/11/16 19:11

Client Sample ID: North Pond Lab Sample ID: 500-107462-2

Date Collected: 02/10/16 10:45

Date Received: 02/11/16 09:50

Matrix: Ground Water

Batch Batch Dilution Batch Prepared Method or Analyzed Prep Type Type Run Factor Number Analyst Lab 3005A Total Recoverable Prep 322586 02/12/16 08:45 JEF TAL CHI Total Recoverable Analysis 6020A 1 323005 02/15/16 15:12 PFK TAL CHI Total/NA Analysis 353.2 1 323077 02/15/16 23:44 HMW TAL CHI Total/NA Analysis SM 4500 H+ B 1 322568 **HMW** TAL CHI (Start) 02/11/16 19:18 (End) 02/11/16 19:25

Client Sample ID: South Pond Lab Sample ID: 500-107462-3

Date Collected: 02/10/16 10:50 Matrix: Ground Water

Date Received: 02/11/16 09:50

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322586	02/12/16 08:45	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	323005	02/15/16 15:16	PFK	TAL CHI
Total/NA	Analysis	353.2		1	323077	02/15/16 23:45	HMW	TAL CHI
Total/NA	Analysis	SM 4500 H+ B		1	322568		HMW	TAL CHI
					(Start)	02/11/16 19:32		
					(End)	02/11/16 19:39		

Lab Sample ID: 500-107462-4 Client Sample ID: Trip Blank

Date Collected: 02/10/16 00:00 Matrix: Water

Date Received: 02/11/16 09:50

<del></del>	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	8260B		1	323811	02/21/16 17:11	PMF	TAL CHI	

#### Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

### **Certification Summary**

Client: Central Wire (Techalloy)
Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-107462-1

Laboratory: TestAmerica Chicago The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
Illinois	NELAP	5	100201	04-30-16

### **Method Summary**

Client: Central Wire (Techalloy) Project/Site: Ponds and Process Tanks TestAmerica Job ID: 500-107462-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL CHI
SM 4500 H+ B	рН	SM	TAL CHI

#### **Protocol References:**

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



### **Sample Summary**

Client: Central Wire (Techalloy)
Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-107462-1

Lab Sample ID	Client Sample ID	Matrix	Collected Received
500-107462-1	P&T Effluent	Ground Water	02/10/16 11:10 02/11/16 09:50
500-107462-2	North Pond	Ground Water	02/10/16 10:45 02/11/16 09:50
500-107462-3	South Pond	Ground Water	02/10/16 10:50 02/11/16 09:50
500-107462-4	Trip Blank	Water	02/10/16 00:00 02/11/16 09:50



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Chicago 2417 Bond Street

## TectAmerica

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Chain of Custody Record, 1st & 2nd Month of Quarter University Park, IL 60466

phone 708.534.5200 fax 708.534.5363																				TestAmerica l		
Client Contact	Project M	anager: Ro	bert Johns	n	***************************************	Site Contact: Robert Johnson							D	ıte:	2//	0/	16			COC No: 510568		
Central Wire Union Plant	Tel/Fax: 8	15.923.4919	; 815.923.2	126		La	ıb Coı	ıtact:	Manage 1			~~~	C	ırrier	: UPS		*************		***********	1 of_	_1 CO	Managananananananananananananananananana
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Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered	vocs (	Metals* (250 ml Jars) 1, 4	pH 1, 6											Sample	Specific N	otes:
P&T Effluent	2/10	1110	G	GW	3	N	Х															
P&T pH		11/0	G	GW	1	N			X												« B B E E	1985.
North Pond		1045	G	GW	1	Ν		X _													_ 5	
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Trip Blank						_						11	_		_				<u> </u>			
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					ono consultation in																	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaC	OH; 6= Othe	),															ا ا					
Possible Hazard Identification		,					Sam		-			į.				_				ed longer than		
Non-Hazard Flammable Skin Irritant	Poison i	B ——	Unknown		udustation (Constitution of the Constitution o			- Ret	um 1	o Clie	ent		X Di	sposa	l By L	ab		- A	rchiv	e For	Months	}
Special Instructions/QC Requirements & Comments:  North Pond Metals: Iron (Fe), Lead (Pb), Manganese (Mn), Nickel (Ni) & Selenium (Se) South Pond Metals: Iron (Fe), Lead (Pb), Manganese (Mn), Nickel (Ni) & Selenium (Se) Rec Center Metals: EPA Method 6020A & pH - no preservative																						
Relinquished, by:	Company:		26 les	Date/Tit	ne:, ~	<u></u>	Rece	ed b	y: /	7		8/			Comp	any:			spannonthr.nc	Date/Time: /	4 A	Wa.na
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### Login Sample Receipt Checklist

Client: Central Wire (Techalloy) Job Number: 500-107462-1

List Source: TestAmerica Chicago Login Number: 107462

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.2c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Refer to Job Narrative for details.
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	